DOCUMENT RESUME

ED 027 869 JC 690 063

By-Ringer, Wayne B.

Bureaucratic Character of Adult Education Organizations and Innovativeness in Program Development.

Pub Date 8 Feb 69

Note-24p.; Paper presented at the annual meeting of the American Educational Research Association (Los Angeles, February 8, 1969).

EDRS Price MF-$0.25 HC-$1.30

Descriptors-*Adult Education, *Bureaucracy, *Innovation, Instructional Innovation, *Junior Colleges, Organization, Power Structure, *Statistical Analysis

The relationship between the bureaucratic character of an adult education organization and its willingness to accept innovation in program development was investigated. An instrument was constructed and administered to 45 Cooperative Extension Service organizations to obtain a profile of each one in terms of five characteristics of bureaucracy as perceived by its members. From a pilot study of ten organizations felt to represent opposite ends of the bureaucratic continuum, 60 items with the highest positive value were chosen and the final instrument sent to 675 staff members, eliciting a 92% usable response. It was hypothesized that, between the most and least innovative organizations, there would be no significant difference between the mean scores for each of five scales determined as measures of bureaucracy by the pilot study. The scales, which vary from rigid to flexible on a 5-point scale, are (1) hierarchy of authority, (2) division of labor, (3) rules and procedures, (4) rewards, and (5) impersonality. Budget and personnel were combined as resources; rules with rewards; and length of service and levels of authority were added to these variables in a regression equation. The five hypotheses were tested by Chi-square and the combined data analyzed in relation to each hypothesis using a multiple regression equation. Collectively the variables were significantly related to program innovations, but, individually analyzed, only resources and rules and rewards were so related. (MC)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

BUREAUCRATIC CHARACTER OF ADULT EDUCATION ORGANIZATIONS AND INNOVATIVENESS IN PROGRAM DEVELOPMENT

A PAPER PRESENTED AT THE

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

LOS ANGELES, CALIFORNIA

FEBRUARY 8, 1969

by

WAYNE B. RINGER

HEAD, CONFERENCE AND INSTITUTE DIVISION

UTAH STATE UNIVERSITY

LOGAN, UTAH

JC 690 063

UNIVERSITY OF CALIF.
LOS ANGELES

MAR 18 1969

CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

INTRODUCTION

Scientific and technological developments are important factors in the formation of a contemporary society distinguished by continuing change, a society unlike the one originally transmitted to the present generation of mature adults. As cultural patterns persist in change, the educational organizations serving the adult population must be ready to meet new challenges or face the threat of obsolescence or eventual dissolution. Innovativeness in the development of educational programs may be the means of avoiding the latter alternatives.

The ability of adult education institutions to anticipate the needed educational programs from the situation in the local, state, and national community appears to vary widely. Many factors impede or facilitate innovativeness in program development, and it seems to the writer that the administrative climate within which the organizational membership operates would have important relationships to the program output.

The writer feels that the administrative climate of organizations varies between two extremes and that climate can be described best through the use of a theory of organization called "bureaucracy". Even though an organization may be termed "bureaucratic," it need not be administered in the same way as another bureaucratic organization. Rather, bureaucratic organizations are thought to vary widely in the characteristics of their administration, and it is this difference in the administration of organizations which establishes in part the working climate for organizational members.

Purpose of the Study and Definition of the Variables

The purpose of this study was to investigate the relationship between the bureaucratic character of an adult education organization and its innovativeness in program development.

Bureaucratic character encompasses both organizational form and management procedures and varies in application between the extremes of rigidity and flexibility. Rigidity is the strict interpretation of bureaucratic characteristics and flexibility is the polar opposite. The bureaucratic character of an organization can be influenced by any person holding a position in the administrative or supervisory hierarchy; it is more than the idiosyncratic expression of one man's personality. The investigator believes that the administrative climate as perceived by the organizational member can be used as a predictor of his behavior more readily than information obtained from policy handbooks and rules and procedures manuals.

Innovativeness in program development is not interpreted as a universal good; however, a limited amount of innovation is needed to develop new programs in a stable environment, and when the situation is changing rapidly, innovation may be a necessity for organizational survival. For the purposes of this study the interpretation of the term "innovation" is not to be restricted to the first known application of an idea or practice; it is however, to be confined to the reference groups of the organizational innovators which are to include all sister organizations performing similar functions. After thorough consideration of the possible alternatives, an individual may initiate an innovation

in program development by implementing a new idea or practice which either had its origin in the mind of the innovator or in a situation other than that of the circumstances to which it is to be applied. Indices of innovation in an organization may be categorized under the headings of service or policy innovations, process or procedural innovations, product or output innovations, organizational structure innovations, and innovations involving new personnel or clientele.

Background of the Problem

The personnel of organizations become accustomed to set patterns of action in performing their assigned roles, and these patterns remain relatively unchanged over extended periods of time. If one of the primary organizational objectives is performance efficiency, then these habitual patterns of action are recognized as desirable traits, but if there is a need for the membership of such an organization to synchronize their functions with a rapidly changing external environment and even anticipate necessary adjustments, habitual work patterns may be detrimental.

Synchronizing the functions of an organization with its changing external environment requires among other things an ability to innovate.

Bureaucracy and Innovation

Several writers have used or proposed the use of the characteristics of a bureaucratic model as a means of analysis in studying and theorizing

about the innovative organization.[1] Max Weber, the originator of the concept, defines bureaucratic administration as "fundamentally the exercise of control on the basis of knowledge."[2] Bureaucracy, in essence and for the purposes of this presentation, is defined as a pattern of organizational structure designed for handling complex administrative tasks and through which numerous functions are rationally controlled.

"It has been commonplace among behavioral scientists that the bureaucratic form of organization is characterized by high productive efficiency but low innovative capacity."[3] "Bureaucratic structure exerts a constant pressure upon the official to be methodical, prudent, and disciplined,"[4] characteristics which act in opposition to innovation. The pressure to conform to rules may be felt to the extreme by organizational members, thus causing them to avoid novel approaches to problems: "In short, the bureaucracy is the most efficient organizational structure if you want reliability and repetitiveness, by definition almost the opposite of innovation."[5]

---

[1]Peter M. Blau and Richard W. Scott, Formal Organizations, A Comparative Approach (San Francisco: Chandler Publishing Co., 1964), p. 34.

Robert K. Merton, "Bureaucratic Structure and Personality," Josepth A. Litterer, Organizations - Structure and Behavior (New York: John Wiley & Sons Inc., 1963), p. 375.

Victor A. Thompson, "Bureaucracy and Innovation," Administrative Science Quarterly, X (June, 1965), pp. 1-20.

James Q. Wilson, "Innovation in Organization; Notes Toward a Theory," Approaches to Organizational Design, ed. James D. Thompson (Pittsburg: University of Pittsburg Press, 1966), pp. 195-218.

[2]Max Weber, "The Theory of Social and Economic Organization, translated by A.M. Henderson and Talcott Persons (New York: Oxford University Press, 1947), p. 339.

[3]Thompson, op. cit., p. 1

[4]Merton, loc. cit.

[5]Selwin W. Becker, The Innovative Organization, Selected Papers No. 14, The University of Chicago (Chicago: Graduate School of Business, 1964), p. 7.

Theoretical Framework

The characteristics of bureaucracy in organization are conceived as varying along a continuum from rigidity to flexibility in terms of their interpretation and application in any given situation.

Five generally recognized characteristics of bureaucracy which appeared logically to have relevance to the problem of innovation in organizations were selected from the writing of eight theorists: (1) hierarchy of authority, (2) division of labor, (3) rules governing behavior of members, (4) differential rewards of office, and (5) impersonality in personal contact.

1. Hierarchy of authority and decision making:

The hierarchy of authority means that a lower position is under the control and supervision of a higher one and no position is left without control.[1] "A hierarchy is a system of roles - the role of subordination and superordination. A role is an organized pattern of behavior in accordance with the expectations of others."[2] Thus roles are learned cultural patterns of behavior. A hierarchy or delimitation of jobs may be established with relative ease where events or job roles are uniform, but unique events make it difficult for one hierarchy to suffice for all roles.[3]

---

[1]From Max Weber: Essays in Sociology, translated by H.H. Gerth and C. Wright Mills (New York: Oxford University Press, 1946), p. 197.

[2]Victor A. Thompson, "Hierarchy, Specialization, and Organizational Conflict," Administrative Science Quarterly, V (1960-61), p. 486.

[3]Eugene Litwak, "Models of Bureaucracy Which Permit Conflict," American Journal of Sociology, LXVII (1961), p. 178.

2. Division of Labor and the Conception, Communication and Implementation of New Ideas:

A systematic division of labor specifying rights, boundaries of activities, specialities or competencies is an essential bureaucratic characteristic. To assure predictability and accountability of each office holder and to prevent duplication or over lap in work roles, each persons duties and jurisdictions are carefully defined as in job descriptions. A narrow division of specialized assignments between the sub-units is justified as a means of focusing on each individual's responsibility but is thought to be detrimental in the communication and implementation of new ideas.

3. Rules and Procedures Governing Behavior of Organizational Members;

The system of rules or regulations delimits the scope of individual behavior and facilitates standardization and equality in relationships with clientele and work colleagues; it also reduces the amount of effort needed in performing recurring specific tasks because the rules obviate the need for deriving new solutions to each problem.[1]

4. Differential Rewards of Office and Motivating Factors:

One of the criteria for advancement in the bureaucratic organization is successful adjustment to the organizational patterns. Personnel policies with incentives for advancement on an equitable basis tend to maintain order. The bureaucratic organization has a system of advancement in rank and salary within a specialty area which is

---

[1] Weber, op. cit., p. 330

based upon seniority, merit and technical improvement in a work role,[1] but the highest monetary rewards for service in the bureaucracy are not in the speciality area but are reserved for administrators. Etzioni points out that most experts would refuse administrative positions because of their commitment to professional values and groups.[2]

Strictly interpreted bureaucratic administrative procedures with regard to employees' rewards appear to inhibit innovativeness in three ways: (1) by encouraging conformity to organizational patterns, (2) by causing those who are not inclined to adhere to the organizational pattern to look elsewhere for employment, and (3) by enticing specialists to leave the area of their greatest competence for an adminstrative position.

5. Impersonality and Interpersonal Relations:

Bureaucratic personnel must develop traits of character which permit them to interact with members and clientele of their organization in such a way that emotional tendencies or personal feelings are suppressed. The development of strong feelings toward fellow workers or clients may influence the decisions which are made concerning them. Personal interests make impartial treatment difficult to achieve as these situations arise. Impersonal relationships among staff members severely limit cohesive group interaction and make it difficult for the innovator to gain acceptance of his proposal. The free interchange of ideas among staff

---

[1] Weber, op. cit., p. 334.

[2] Amitai Etzioni, "Authority Structure and Organizational Effectiveness," Administrative Science Quarterly, IV (June, 1959), pp. 53-54.

members in all segments of the system, at all hierarchial levels, and between staff members and the clientele of the organization appears to be conducive to innovation within the organization because multiple and diverse sources of information can be focused upon a problem, and group involvement may also contribute to the ultimate acceptance of innovation.[1]

Hypotheses

It is hypothesized that:

1. Staff members of the more innovative organizations will perceived the hierarchy of authority as being flexible in application, loosely interpreted and applied; and conversely, the staff members of the less innovative organizations will perceive the hierarchy of authority as being rigid in application and strictly interpreted by the administrative staff.

2. staff members of the more innovative organizations will perceive the boundaries between sub-units of specialties to be flexible and somewhat undifferentiated in terms of individual roles, and conversely, the staff members of the less innovative organizations will perceive the boundaries between sub-units as setting discrete limits of responsibility, interest and required activity in the organization.

3. staff members of the more innovative organizations will tend not to perceive the work rules and procedures to be a means of placing restrictions of their behavior, while staff members of the less innovative organizations will perceive the rules and procedures as a means of constraining their activities or behavior.

4. staff members of the more innovative organizations will tend to place emphasis upon receiving their occupational compensation and rewards through opportunities for professional recognition, growth and development in their field, while staff members of the less innovative organizations will tend to perceive their rewards as coming predominately from salary, job status, and advancement in rank within the organizational hierarchy.

---

[1]Thompson, "Bureaucracy and Innovation," op. cit., p. 14. Becker, loc. cit.

5. staff members of the more innovative organizations will perceive the norms of the organization as quite permissive of personal and social interaction among all staff members both horizontally and vertically in the organizational structure and between staff members and the organizational clientele, while these relationships will be perceived by staff members in the less innovative organization as being subject to constraints.

Null Hypotheses

Relative to the most innovative and the least innovative organizations, there will be no significant difference between the mean scores for each of the five scales used in measuring bureaucratic characteristics on the:

1. hierarchy of authority continuum,
2. division of labor continuum,
3. rules and procedures continuum,
4. differential rewards continuum, and
5. impersonality - inter-personal relations continuum.

Method

The five null hypotheses of this study were statistically tested through the use of data collected by questionnaire from professional staff members in Cooperative Extension Service organizations. A description of the procedures which were used will follow.

Organizations Studied and Instrument Construction

The population for this study was forty-five Cooperative Extension Service organizations.

An instrument was constructed to obtain a profile of each organization concerning the five characteristics of bureaucracy as perceived by organizational members. After numerous revisions, the instrument was prepared for testing in a pilot study using ten organizations, which were thought to have administrative structure and functions

representing opposite ends of the bureaucratic continuum. Interviews were obtained from the adminstrative representatives in all but one of the ten organizations, and the majority of those who responded to the instrument were also interviewed either before of after making their response.

Pilot Study

Data from 112 pilot study instruments were analyzed to determine which of the 130 items within the instrument would most discriminatively measure the bureaucratic characteristics being studied. Index of discrimination values were ranked and 60 items with the highest positive values were selected for the final instrument.

Reliability and Validity

The Spearman Brown prophecy formula was used to test intra-class reliability which produced coefficient values ranging from .68 to .97 on the five scales. Reliability measures were also obtained on the final questionnaire through the test-retest approach which produced values ranging from .68 to .82 on the five scales.

Validity was determined through the use of groups which were believed to exhibit external indicators of the characteristics being measured. The organizations selected for the pilot study were assumed to be representative of opposite ends of the bureaucratic continuum. Staff members of the organizations who responded to the instrument were interviewed to ascertain whether or not the instrument would accurately reveal their perceptions of the administrative characteristics of their respective organizations. The level of agreement

between the interviews and the instrument scores was relatively high insofar as the investigator was able to obtain an accurate account of the perceptions of bureaucratic characteristics through observations and interviews. The definition of bureaucratic character was used as the basis for evaluating the face validity of the instrument.

Interdependence of Scales

Correlation coefficients were calculated among the five bureaucratic characteristics of the pilot study instrument tc obtain a measure of the relative interdependence of the scales and these values ranged from .41 to .66 indicating that the five bureaucratic characteristics were not completely independent or conceptually discrete variables as was desired.

Collection and Testing of Data on Innovation

A rating procedure was developed to obtain the information needed to rank the states on innovativeness in program development but which would not require that the raters do the actual ranking. The ratings were obtained from three sources: 43 extension service administrators; a panel of three judges, and certain Federal Extension Service personnel who were available for interviews and willing to participate in the rating exercise.

The demonstrated level of program innovativeness during the last "five years"was specified as the period to be considered in rating Cooperative Extension Service organizations.

A card sorting method was used in making the ratings because is permitted the raters to make adjustments easily in the relative positions of the states as the rating process proceeded. Scale values

of "1" through "5" were used as the rating scores and "0" was the score for the states which were not rated.

The ratings made by the panel of judges and federal staff were combined into one group of ten raters. Mean scores were calculated for each state along with a mean square estimate of reliability (.96). The reliability coefficient was .99 for the ten raters combined, indicating a high level of agreement on the over-all rating. The inter-rater reliability coefficient on the 43 returns from state administrators using the mean square estimate was .96, also indicating a high level of agreement on the ratings. A grand mean score for each state was derived from the mean scores of the grouped raters, and was used as the dependent variable for hypotheses testing.

Validity of Ratings

If the two groupings of raters, who would be expected to view the state programs from differing perspectives--state and national, were following the same definition and criteria in making the ratings, one would expect a high positive correlation between the two groups of raters. A Pearson "r" correlation test provided a coefficient of .95 after correcting for attenuation.

Another check on the validity of the ratings was made by reviewing and comparing the annual reports submitted to the FES by 14 states; seven of which were on the high end of the ranking order and seven were on the low end.

Collection of Data on the Independent Variable

The final questionnaire was mailed to a random sample of two supervisors and 13 non-supervisory staff members in each of 45 states. Of the 675 potential respondents, 95 percent returned the questionnaire. Ninety-two percent of the questionnaires returned were complete and arrived in time to be included in the analyses of the data.

Analyses of the Data

The data were analyzed as they related to each hypothesis, using correlation and multiple regression analysis. To obtain an understanding of the statistical relationships between the eleven variables under consideration, a large matrix of intercorrelations was computed. The scoring of variables upon which hypotheses were based was done in such a way that a positive correlation would result if the direction of the scores as determined by the analysis was found to be in agreement with the expected relationships.

Hierarchy of Authority and Innovation

There was essentially no correlation between "innovation" in program development and the "hierarchy" of authority (-.03).* "Hierarchy" was the only variable to show an inverse relationship to "innovation", as the other variables were all positively correlated with "innovation". If there are no other factors in "hierarchy" which have been over-looked by the investigator, then it is possible that innovation is independent

---

*The quotation marks are used to designate the abbreviation for the variable names as they will be used in future references.

of this bureaucratic characteristic. Where innovation in program is desired an administrator may identify the sources of innovation and make special concessions for hierarchical relationships which would be normally unacceptable. The differences in the way respondents perceive hierarchical relationships may be due to the exceptions permitted by administrators.

Division of Labor and Innovation

The correlation between the "division" of labor and "innovation" was .25, indicating that a limited positive relationship may exist between the variables. One would expect to find cooperation between colleagues working on interdisciplinary activities to be above the average in the most innovative organizations. Employees of the most innovative organizations will probably feel that there are as many opportunities for personal gain when working cooperatively on inter-disciplinary group activities as when they are working individually.

Rules and Procedures and Innovation

The positive correlation coefficient between "rules" and "innovation" (.21) was not as high as was expected. The program innovator may be able to operate in an organization where rules and procedures are rigorously followed by partially circumventing restrictive policies. It is also possible that constraints upon the activities of the various members of an organization are applied selectively so that an innovator may have more or less freedom depending upon the desires of policy-makers.

Differential Rewards of Office and Innovation

Differential "rewards" of office correlated positively with "innovation" at the .38 level, indicating that a significant relationship does exist between these two variables. Because of this relationship, one would expect to find a staff orientation in the most innovative organizations and advancement policy which favors progress in an academic field in preference to a promotion to administrative positions. Maintenance rewards of monetary compensation would likely be dependent upon the relative contribution of each staff member in furthering the achievement of generally accepted organizational objectives.

Interpersonal Relations and Innovation

A correlation coefficient of .05 meant that there was practically no relationship between interpersonal "relations" and "innovations". It appears that the program innovator can operate as effectively in organizations where a relatively high degree of impersonalness in interpersonal relations prevails as in organizations where there is considerable personal interaction among staff members and between staff and the clientele. It should be recognized, however, that only a small segment of the organizations provided data for this analysis, and if a cross-section of the whole organization had been asked to respond, the results may have been different.

Five Additional Covariates and Innovation

Three of five additional covariates correlated positively with "innovation" at a higher level than did any of the five variables upon which hypotheses were based. The total operating "budget" had a positive correlation of .68 with "innovation", total "personnel"

correlated .61 with "innovation", and the number of hierarchical "levels" between respondents and the top administrator correlated .52 with "innovation". These three variables also correlated relatively high with each other, indicating non-independence.

The average number of years of "service" for staff respondents correlated with "innovation" at the .27 level, and the average number of years employees worked in their present position ("tenure") correlated with "innovation" at the .22 level. The variables "service" and "tenure" were not expected to correlate with "innovation" positively. If a greater number of the factors which are common among these variables could have been eliminated, "service" and "tenure" might not have correlated with "innovation" positively.

Regression Analysis

A regression analysis was made to test the significance of the relationships observed in the correlation matrix. The variable "tenure" was not included in the regression analysis because "tenure" and "service" correlated with each other at the .76 level and neither variable correlated very highly with "innovation," .22 and .27 respectively. Well over one-half of the variance in the level of "innovation" of the 45 organizations studied is attributable to its relationship with the nine covariates.

Relationships Between Variables

A null hypothesis of no significant difference between the mean score on the hierarchy of authority continuum for the more innovative and for the less innovative organizations was accepted. A chi-square of 0.03 and a probability value of .86 support this decision.

It was hypothesized that there will be no significant difference between the mean score on the division of labor continuum for the more and for the less innovative organizations. The calculated chi-square for "division" was 3.25 with a p of .07. While the test of significance fell short of the commonly accepted alpha level of .05, the investigator was not in favor of accepting the null hypothesis.

It was hypothesized that there will be no significant difference between the mean score on the rules and procedures continuum for the more innovative and for the less innovative organizations. A chi-square value of 0.35 and a p of .56 were obtained, and the null hypothesis of no difference was accepted.

It was hypothesized that there will be no significant difference between the mean score on the differential rewards continuum for the more and for the less innovative organizations. A chi-square of 3.08 was calculated for "rewards" with a p of .079. "Rewards" as was previously reported correlated positively with "innovation"(.38). For this reason the investigator will defer acceptance or rejection of the null hypothesis of no difference until further analysis is reported.

It was hypothesized that there will be significant difference between the mean scores on the interpersonal relations continuum for the more innovative and for the less innovative organizations. A chi-square of 2.25 and a p of .13 for "relations" are an indication that the null hypothesis of no difference should be accepted. This decision is supported by the correlation test also.

Hypothesized relationships were not offered concerning the other four non-bureaucratic variables, but it was felt that these factors

might be related to innovation. There was a question about how the size of an organization might relate to its innovativeness in program. "Budget" and total "personnel" were used as indicators of size. Both "personnel" and "budget" were highly significant when "personnel" was added to the regression equation ahead of "budget" (personnel - chi-square = 19.92, p = 0.000; budget - chi-square = 9.53, p = .002). The high correlation between the two variables, "budget" and "personnel" (.97), indicates that there are common factors in the variables. When the mean square deviation attributable to "budget" was removed in the regression equation, the remaining mean square deviation accounted for in "personnel" was inadequate to provide a significant relationship. These two variables were subsequently combined to make a variable "resources" which will be considered later in the report.

The last two variables added to the regression equation, average length of "service" and the average number of administrative and supervisory hierarchical "levels" between the respondent and the top administrator in each organization, did not prove to be significant.

Analysis Through Grouping of Variables

Three pairs of variables which had relatively high correlation coefficients and which seemed to be logically related to each other were selected for analysis by grouping; they were: "rules - rewards," "budget - personnel", and "division - relations." "Rules - rewards" and "resources," which is the name given to the combined variables - "budget" and "personnel," proved to be statistically significant in the analysis by grouping, while the "division - relations" variables provided no new information.

The analysis of the contribution of the independent variable, "rules - rewards" to "innovation" proved to be significant (chi-square = 4.60, p = 0.03). As the level of bureaucratization decreases in an organization, the number of specified rules and procedures governing the work situation as perceived by staff members may also decrease. Staff members may consider a situation to be quite rewarding where the constraints on their activities are perceived to be minimal and also flexible in application. The innovator may look upon the absence of constraints as a reward in itself.

It was expected that the organization with the greatest amount of material and human resources would also be most able to develop innovative programs. The results of the analysis supported this expectation. The significance of this relationship is interpreted to mean that as the budget and staff of Cooperative Extension Service organizations increase in size, their relative ranking on innovation also increases.

Summary and Conclusions

Collectively the nine variables added to the regression equation were found to be significantly related to innovation in program development, but when the individual contribution of each variable was subjected to further analysis, not all of the variables were found to be predictors of innovation in program.

The Hierarchy of Authority and Innovation

The bureaucratic characteristic, hierarchy of authority, did not prove to be significantly related to the dependent variable.

There are a number of hierarchical levels in the extension service organizations which were not included in the sample from which data were collected, such as area and county professional staff and sub-professional employees. It is possible that significant relationships between "hierarchy" and "innovation" would result if the perceptions of staff members at all hierarchical levels in the organization were sampled.

The Division of Labor and Innovation

The division of labor was significantly related to innovation in program development, but did not have the strongest relationship of the bureaucratic characteristics tested. Specialization may have been more rigorously applied in other segments of the organization than in those from which data were collected, or the converse could be true. For this reason it should be acknowledged that the respondents from which data for this study were collected did not represent all systems in the organization.

Flexibility in the interpretation of the division of labor in an adult education organization appears to be conducive to innovation in program. It would seem that programs must develop with representation from all interested parties if divergence of views and innovative approaches are to be the result. The organizational structure will either make this type of representation possible, or it will tend to isolate those individuals who should have a unique or innovative contribution to make in the problem-solving process.

Rules-Rewards and Innovation

The bureaucratic characteristics, rules and procedures governing work functions, did not prove to be a significant predictor of inno-

vativeness in program, but when this variable was combined with the characteristic, "rewards," a significant statistical relationship was obtained. The relatively high positive correlation between the two variables was an indication that the variables had certain factors in common. Staff members may perceive a loose or flexible system or rules in the same way that they perceived the reward system in the organization with a low degree of bureaucratization. The absence of a proliferation of exacting rules and procedures may be one of the incidental rewards for those working in this type of organizational situation.

Impersonality in Interpersonal Relations and Innovation

It appears that the kind of interpersonal relationships established between staff members can not be functionally associated with the innovative capacity of an organization. Communication among the staff members in some extension organizations would seem to be effective for the production of innovative programs even through there may be a considerable amount of impersonality in staff relationships.

Resources and Innovation

Human and material resources were found to be closely related to innovativeness in program. The more money and the more people with which the extension service organizations have to work the greater the innovativeness in program. The large extension organization with many staff members has a greater variety of inputs to apply in the conception of innovative programs than does the small organization; there are increased possibilities for making adjustments in the staff

members' assignments so that time may be set aside for exploratory activities.

Average Length of Service and Innovation

Innovation in program development appears to be quite independent of the length of time employees have spent in the organization. It is possible that neophyte employees are no better able to innovate in an institutional climate, which is not conducive to innovators, than are their colleagues who have been employed for extended period of time in the same organization and position.

Inferences for Adult Education and the Study of Other Institutions

In the past some of the most significant innovations in adult education have come about as the result of the efforts of one individual with highly creative abilities and leadership qualities who was able to attract other persons to support his endeavors. A charismatic type of leadership has been the prominent feature around which many of these institutions of adult education have developed.

The major part of adult education endeavors today are affiliated with large bureaucratic organizations. Adult education programs in universities and colleges, public schools, business and industry, government and military organizations, labor unions and religious institutions take place within complex bureaucratic settings. The number of institutions of adult education controlled and operated by charismatic leaders is rather insignificant in relation to those bureaucratic types of institutions which have been cited.

The major portion of adult education work in the future will be directed for the most part by some type of bureaucratic organization. The bureaucratic administrative characteristics which have been found to support the level of innovativeness in extension may also influence the innovativeness of other adult education organizations and the larger institutions of which they are a part.

Limitations of the Study

While the objectives which were initially established for this study have been attained, there are three areas which seem to the investigator to be limiting factors in relation to the results. The ordinal measurement of innovativeness in program development which was used as the dependent variables did not permit comparisons of the magnitude of innovation according to organizational size. The population from which the sample was taken represented only one type of adult education organization thus limiting the breadth of generalization. Two of the characteristics of bureaucracy have questionable value for the study of innovation in program, hierarchy of authority and interpersonal relations.

Recommendations for Further Research

In addition to rules and rewards, division of labor and resources, one might consider such variables as the level of the perceived need for innovation, staff competence in program development, the nature of the organizational structure, the relative amount of slack built into the program and staff assignments, and the administrative orientation toward innovation. The study of organization is complex, and the factors influencing innovation are neither few in number nor theoretically simple.